c) transforming the wild-type strain with the individual PCR products from a resistant strain isolated in step (b) and isolating the resulting strains that are resistant to the compound;

d) generating smaller PCR products of approximately 1 to approximately 4 kb which encompass the PCR product from a resistant strain identified in step (c);

e) transforming a wild-type strain with one of the smaller PCR products from step (d) and determining whether the strain is resistant to the compound;

f) repeating step (e) for each of the smaller PCR products until a strain resistant to the compound is found or until all of the smaller PCR products have been evaluated;

g) sequencing the smaller PCR product isolated from a strain resistant to the compound and comparing the sequence to the corresponding sequence in a wild-type strain to determine the mutation or mutations that confer resistance to a compound.

2. (Cancelled).

3. (Withdrawn).

5. (Currently amended) A process for identifying and characterizing a mutations that confer resistance to a compound comprising:

generating overlapping PCR products of approximately 10 kb to approximately 15 kb which encompass the complete chromosome from a wild-type bacteria strain for which the chromosomal sequence is known, under conditions that allow for mutation of the fragments;

allowing one or more of the generated PCR products to be incorporated into the chromosome of wild-type bacteria;

isolating bacterial strains that demonstrate resistance to a compound; and

identifying the mutation responsible for the resistance.

6. (Currently amended) A process for identifying mutations that confer resistance to a compound comprising:

a) generating overlapping PCR products of approximately 10 kb to approximately 15 kb which encompass the complete chromosome from a strain of bacteria which demonstrates resistance to a compound;

b) allowing one or more of the generated PCR products to be incorporated into the chromosome of a wild-type bacteria;

c) isolating bacterial strains that demonstrate resistance to the compound; and identifying the mutation responsible for the resistance.

7. (Cancelled)

10. (Currently amended) The process of claim 5 where the compound is a fluoroquinolone.

11. (Currently amended) The process of claim 5 where the compound is ciprofloxacin.

12. (Currently amended) The process of claim 5 where the compound is clinafloxacin.

13. (Currently amended) The process of claim 5 where the compound is dihydroxydiphenylether (DHDPE).

14. (Currently amended) The process of claim 5 where the compound is Triclosan.

15. (Cancelled).

16. (Currently amended) The process of claim 1 in which the compound inhibits the growth or survival of the wild-type bacteria under any condition.

17. (Currently amended) The process of claim 1 in which the compound inhibits the growth or survival of the wild-type bacteria in culture.

18. (Currently amended) The process of claim 1 in which the compound inhibits the growth or survival of the wild-type bacteria in an animal host.

19. (Currently amended) The process of claim 1 in which the compound is an inhibitor of type II topoisomerases.

20. (Currently amended) The process of claim 1 in which the compound is an inhibitor of FabI.

21. (Currently amended) The process of claim 1 in which the compound is an inhibitor of enzymes involved in fatty acid biosynthesis.

22. (Currently amended) The process of claim 6 in which a strain of bacteria which demonstrates resistance to a compound was isolated from a culture that had been treated with a chemical mutagen.

23. (Currently amended) The process of claim 6 in which a strain of bacteria which demonstrates resistance to a compound was isolated from a culture that had been treated with ultraviolet light.

24. (Currently amended) The process of claim 6 in which a strain of bacteria which demonstrate resistance to a compound was isolated from a culture that had been subjected to a mutagenic protocol that consisted of insertion of DNA into the chromosome of the bacteria.

Claims 25 - 35 Withdrawn.

36. (Currently amended). A process of screening compounds for antibacterial activity comprising:

a) identifying the mutation that confers resistance to a compound using the method of Claim 1, Claim 5, or Claim 6;

b) contacting a strain of bacteria containing the mutation with a compound; and

c) evaluating the compound for antibacterial activity.

Remarks

Claims 1, 4-14, 16-24 and 36 are pending in the present application. Claims 3 and 25-35 have been withdrawn to limit the pending claims to cover only the elected subject matter of Group I. Applicants reserve the right to file a divisional case including these claims at a later date. Claim 1 has been amended to clarify the claim language, to correct for insufficient antecedent basis and to specify that the PCR products are approximately 10 kb to approximately 15 kb. Support for this amendment can be found on page 2, lines